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3723

Reg. No. :

Name :

**Sixth Semester B.Tech. Degree Examination, June 2015
(2008 Scheme)**

08.606.13 : ADVANCED MANUFACTURING PROCESSES (MPU)

Time : 3 Hours

Max. Marks : 100

- Instructions :** i) Answer **all** questions from Part A. **Each** carries 4 marks.
ii) Answer **one full** question from each Module in Part B. **Each** full question carries 20 marks.

PART – A

1. Distinguish between HIP and CIP.
2. Explain the process of isostatic pressing.
3. What are the characteristic features of squeeze casting ?
4. What do you mean by filament winding ?
5. What are the advantages of injection moulding for thermoplastic parts as compared with hot compression moulding ?
6. Explain the principle of fused deposition moulding.
7. How do thermoplastics differ from thermo-setting plastics ?
8. Distinguish between thick film circuits and thin film circuits.
9. Explain the significance of bulk micro machining.
10. Prepare a short note on ion implementation.



(10×4=40 Marks)

P.T.O.

**PART – B****Module – I**

11. a) Discuss briefly on evaporative pattern casting. 10
b) What do you mean by semisolid metal forming ? Explain. 10
12. a) Give an account on fundamental properties of metal powders. 10
b) Distinguish between hot pressing and isostatic pressing. 10

Module – II

13. a) What are the various components which make up a moulding compound for plastics and explain the function of each. 10
b) What is laminating ? Explain the low pressure method of laminating. 10
14. a) Name the factors that influences the accuracy to which plastic parts can be moulded ? 10
b) Discuss the process of selective laser machining. 10

Module – III

15. a) Enumerate the guiding factors for LIGA micro fabrication process. 10
b) Distinguish between wet etching and dry etching. 10
16. a) Explain how etching combined with fusion bonding can be performed. 10
b) Discuss briefly the fabrication of BJT. 10

(3x20=60 Marks)